

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: Mor et al.

EXAMINER: Tran, T.

SERIAL NO.: 10/608,309

GROUP: 2821

FILED: 06/27/03

CASE NO.: CM03279J

ENTITLED: METHOD AND APPARATUS FOR CONTROLLING  
ILLUMINATION OF A DISPLAY IN A PORTABLE WIRELESS  
COMMUNICATION DEVICE

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Motorola, Inc.  
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November 8, 2006

**SUBSTITUTE APPEAL BRIEF UNDER 37 CFR 41.37**

Mail Stop Appeal Brief - Patents  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, Va. 22313-1450

Commissioner:

The appellants hereby respectfully submit the following substitute Appeal Brief in response to a final Office Action dated September 7, 2005, a Notice of Appeal filed December 20, 2005, an Appeal Brief filed February 28, 2006, and an Order Returning Undocketed Appeal to Examiner mailed October 27, 2006, which Order was issued due to an absence of reference numbers in the section "Summary of Claimed Subject Matter."

## 1. REAL PARTY IN INTEREST

The real party in interest in this appeal is Motorola, Inc.

## 2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

## 3. STATUS OF CLAIMS

This is an appeal from a final Office Action dated September 7, 2005. Claims 1-3, 5-10, 12-15, 19, and 20 are appealed. In a first Office Action dated August 27, 2004, the Examiner rejected claims 1-5, 8, 10-12, 15, 17, and 18 under 35 U.S.C. §102(e) as being anticipated by Brenner (U.S. Patent Application Publication no. 2004/0139842). The Examiner objected to claims 6, 7, 9, 13, 14, 16, 19, and 20 as being dependent upon a rejected base claim but as being allowable if rewritten in independent form including the limitations of the base claim and any intervening claim and raised further objections to the claims due to a number of informalities. In an Amendment dated December 22, 2004, the appellants cancelled claims 4, 11, and 16-18 and amended each of claims 1, 5, 7, 8, 12-15, and 19-20.

In a second Office Action dated March 24, 2005, the Examiner objected to claims 6 and 20 due to informalities and objected to claim 15 as failing to further limit the subject matter of claim 8. The Examiner rejected claims 1 and 8 under 35 U.S.C. §102(b) as being anticipated by Lipp (U.S. Patent No. 5,398,022). The Examiner objected to claims 2-3, 5-7, 9-10, and 12-14 as being dependent upon a rejected base claim but as being allowable if rewritten in independent form including the limitations of the base claim and any intervening claim. The Examiner allowed claims 19 and 20. In an Amendment dated June 24, 2005, the appellants amended objected to claims 6 and 20.

Claim 1, as amended, provided a method for controlling an illumination of a display screen in portable wireless communication device. The method included illuminating (208) the display screen, determining (210) at least one illumination time parameter corresponding to a message displayed on the display screen, wherein the at

least one illumination time parameter is based on at least one of a length of the message, a number of lines of the display screen required to display the message, and a type of message to be displayed, and maintaining (212, 214, 216, 218, 222) the illumination of the display screen for a period of time that is based on the at least one illumination time parameter.

Claim 8, as amended, provided an apparatus (106, 116) for controlling illumination of a display screen (114) in portable wireless communication device (100). The apparatus included a light source (116) for illuminating the display screen and a processor (106) coupled to the light source that couples power to the light source to illuminate the display screen, determines at least one illumination time parameter corresponding to a message displayed on the display screen, wherein the at least one illumination time parameter is based on at least one of a length of the message, a number of lines of the display screen required to display the message, and a type of message to be displayed, and maintains a coupling of power to the light source for a period of time that is based on the at least one illumination time parameter.

In a final Office Action dated September 7, 2005, the Examiner reiterated the objection to claim 15 as failing to further limit the subject matter of claim 8. The Examiner rejected claims 1, 8, and 15 under 35 U.S.C. §102(b) as being anticipated by Lipp. The Examiner further reiterated the objections to claims 2-3, 5-7, 9-10, and 12-14 as being dependent upon a rejected base claim but as being allowable if rewritten in independent form including the limitations of the base claim and any intervening claim, and again allowed claims 19 and 20. The pending claims 1-3, 5-10, 12-15, 19, and 20 are reproduced below in the attached Appendix.

#### 4. STATUS OF AMENDMENTS

An Amendment and Response to the Final Office Action was filed on November 14, 2005, and is currently pending. In the Amendment and Response to the Final Office Action, the appellants responded to the Examiner's rejections of claims 1, 8, and 15. The appellants also amended claim 8 to clarify the claim, in particular to provide that the claimed light source is for providing illumination for a display screen and to clarify that

the display screen claimed in claim 15 is not also claimed in claim 8. It is therefore apparent that claim 8, as amended, does not necessitate a new search and properly may be considered in this appeal.

In an Advisory Action dated December 13, 2005, the Examiner reiterated the rejections of claims 1, 8, and 15 under Lipp. The Advisory Action did not mention the objection to claim 15 as failing to further limit the subject matter of claim 8.

## 5. SUMMARY OF CLAIMED SUBJECT MATTER

The appellant's invention provides a method and apparatus that dynamically adjusts a period of time during which a display screen of a portable wireless communication device is illuminated. The processor couples power to the light source to illuminate the display screen, determines at least one illumination time parameter associated with information to be displayed on the display screen, and maintains a coupling of power to the light source for a period of time that is based on the at least one illumination time parameter. In other embodiments of the present invention, the processor may further determine to not illuminate the display screen, or to terminate illumination of the display screen prior to expiration of the period of time, based on a received instruction or a detected level of ambient light.

Claim 1, as amended, provides a method for controlling an illumination of a display screen in portable wireless communication device. The method includes illuminating (208) the display screen, determining (210) at least one illumination time parameter corresponding to a message displayed on the display screen, wherein the at least one illumination time parameter is based on at least one of a length of the message, a number of lines of the display screen required to display the message, and a type of message to be displayed, and maintaining (212, 214, 216, 218, 222) the illumination of the display screen for a period of time that is based on the at least one illumination time parameter. (FIG. 2; page 7, line 1 to page 10, line 6)

Claim 8, as amended, provides an apparatus (106, 116) for controlling illumination of a display screen (114) in portable wireless communication device (100). The apparatus includes a light source (116) for providing illumination for a display

screen. The apparatus further includes a processor (106) coupled to the light source that couples power to the light source to illuminate the display screen, determines at least one illumination time parameter corresponding to a message displayed on the display screen, wherein the at least one illumination time parameter is based on at least one of a length of the message, a number of lines of the display screen required to display the message, and a type of message to be displayed, and maintains a coupling of power to the light source for a period of time that is based on the at least one illumination time parameter. (FIGs. 1 and 2; page 2, line 19 to page 3, line 4; page 3, lines 11-18; page 4, line 6 to page 5, line 17; page 7, line 1 to page 10, line 6)

## 6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

### Issue 1

Whether claims 1 and 8 are unpatentable under 35 U.S.C. §102(b) as being anticipated by Lipp.

### Issue 2

Whether claim 15 fails to further limit the subject matter of claim 8.

## 7. ARGUMENT

Appellants designate the following group of claims:

Group I: claims 1-3, 5-10, 12-14, 19, and 20.

Group II: claim 15.

(i) Rejection under 35 U.S.C. §112, first paragraph:

None

(ii) Rejection under 35 U.S.C. §112, second paragraph:

None

(iii) Rejection under 35 U.S.C. §102:

The Examiner rejected claims 1, 8, and 15 under 35 U.S.C. §102(b) as being anticipated by Lipp. With respect to claim 1, the Examiner contended that Lipp teaches a method for controlling an illumination of a display screen (50) in portable wireless communication device (5) including illuminating the display screen (50) (via a light source (60), FIG. 1), determining at least one illumination time parameter corresponding to a message displayed on the display screen, wherein the at least one illumination time parameter is based on a type of message to be displayed (col. 3, lines 10-19), and maintaining the illumination of the display screen for a period of time that is based on the at least one illumination time parameter (col. 3, lines 10-65).

The appellants respectfully disagree with the Examiner's interpretation of Lipp. Lipp merely teaches a user illumination of a display of a pager. The user flips a switch and the display lights up for a pre-set fixed period of time. That's all. Nowhere does Lipp teach any determining of an illumination time parameter corresponding to a message displayed on a display screen, wherein the at least one illumination time parameter is based on a type of message to be displayed, or an illuminating of the display screen for a period of time that is based on a illumination time parameter that is so determined.

More specifically, Lipp teaches that a message is received and stored, and a display is then illuminated in response to a user actuating a switch. When the user depresses a key (thereby actuating the switch) for less than a predetermined period of time, preferably 1.5 seconds, the pager merely retrieves the stored message and displays the message on a display (50). When the user depresses the key for more than 1.5 seconds, the pager illuminates the display for a fixed time period (if the display is not already illuminated). (See column 3, lines 59-62, "the activation of light 60 is controlled exclusively by the pager user because this function is dependent on the time duration of switch activation.") The time period that the display is illuminated is fixed and is unrelated to the message being displayed. This is completely different from claim 1, which teaches a determination of an illumination time parameter based on at least one of a length of the message, a number of lines of the display screen required to display the message, and a type of message to be displayed.

While Lipp further teaches that the fixed time period may be set (for example, by the user) to one of multiple values, for example, a set of switches (45) allows the user to pre-set the fixed time period to any of 2, 4, 6, 8, or 12 seconds, again, this is just a pre-setting of the fixed time period. This does not equate to a determination of an illumination time parameter that is based on a type of message to be displayed. In column 3, lines 10-19, of Lipp cited by the Examiner in the final Office Action, Lipp merely teaches that a pager receives and decodes a message, which message, depending upon its length, may require one or more display segments. Nowhere does Lipp teach any determining of an illumination time parameter based on this decoding, let alone based on whether the decoded length of the message requires one or more display segments.

Therefore, Lipp does not teach the features of claim 1 of method for controlling an illumination of a display screen in portable wireless communication device including determining at least one illumination time parameter corresponding to a message displayed on the display screen, wherein the at least one illumination time parameter is based on at least one of a length of the message, a number of lines of the display screen required to display the message, and a type of message to be displayed, and maintaining the illumination of the display screen for a period of time that is based on the at least one illumination time parameter. Accordingly, the appellants respectfully submit that claim 1 is not unpatentable over the prior art of record.

Since claims 2-3 and 5-7 depend directly or indirectly from independent claim 1, the appellants respectfully submit that claims 2-3 and 5-7 are not unpatentable over the prior art of record.

Claim 8 teaches a processor that determines at least one illumination time parameter corresponding to a message displayed on the display screen, wherein the at least one illumination time parameter is based on at least one of a length of the message, a number of lines of the display screen required to display the message, and a type of message to be displayed, and maintains a coupling of power to the light source for a period of time that is based on the at least one illumination time parameter. As noted above, such a processor is not taught by Lipp as the illumination time taught by Lipp is

merely based on a user actuation of a switch and not on a message parameter. Accordingly, the appellants respectfully submit that claim 8 is not unpatentable over the prior art of record.

Since claims 9-10 and 12-14 depend directly or indirectly from independent claim 8, the appellants respectfully submit that claims 9-10 and 12-14 are not unpatentable over the prior art of record.

(iv) Rejection under 35 U.S.C. §103:

None.

(v) Other rejections

The Examiner objected to claim 15 as failing to further limit the subject matter of claim 8. Claim 8 teaches an apparatus for controlling illumination of a display screen in portable wireless communication device that includes a light source, for providing illumination for a display screen, and a processor coupled to the light source, which processor couples power to the light source to illuminate the display screen. Claim 15 claims the display screen that is illuminated by the light source. Appellants respectfully contend that claim 8 does not claim the display screen and accordingly respectfully submit that claim 15 does limit the subject matter of claim 8.

Since claim 15 does limit the subject matter of claim 8 and since claim 15 depends directly from independent claim 8, the appellants respectfully submit that claim 15 is patentable.

For the above reasons, the appellants respectfully submit that the rejection of claims 1, 8, and 15 under 35 U.S.C. §102(e) as being unpatentable over Lipp and the objection to claim 15 as failing to further limit the subject matter of claim 8 are in error and should be reversed and the claims allowed.

Respectfully submitted,  
Tal Mor, et al.

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## APPENDIX

1. A method for controlling an illumination of a display screen in portable wireless communication device comprising:
  - illuminating the display screen;
  - determining at least one illumination time parameter corresponding to a message displayed on the display screen, wherein the at least one illumination time parameter is based on at least one of a length of the message, a number of lines of the display screen required to display the message, and a type of message to be displayed; and
  - maintaining the illumination of the display screen for a period of time that is based on the at least one illumination time parameter.
2. The method of claim 1, wherein maintaining the illumination of the display screen for a period of time comprises:
  - determining a time value based on the at least one illumination time parameter;
  - decrementing the time value to produce a remaining time value; and
  - terminating the illumination of the display screen when the remaining time value no longer exceeds zero.
3. The method of claim 1, wherein determining at least one illumination time parameter comprises determining a plurality of illumination time parameters and wherein an illumination time parameter of the plurality of illumination time parameters comprises a time constant.
4. (Cancelled)
5. The method of claim 1, further comprising:
  - when the display screen is illuminated, receiving an instruction to terminate the illumination of the display screen; and
  - in response to receiving the instruction, terminating the illumination of the display screen prior to an expiration of the period of time.

6. The method of claim 1, wherein illuminating a display screen comprises:
  - sensing a level of ambient light;
  - comparing the level of ambient light to an ambient light threshold;
  - when the level of ambient light is greater than the ambient light threshold, determining to not illuminate the display screen; and
  - wherein illuminating a display screen comprises illuminating a display screen when the level of ambient light is less than the ambient light threshold.
7. The method of claim 1, wherein maintaining the illumination of the display screen comprises:
  - sensing a level of ambient light;
  - comparing the level of ambient light to an ambient light threshold; and
  - when the level of ambient light is greater than the ambient light threshold, terminating the illumination of the display screen prior to an expiration of the period of time.
8. An apparatus for controlling illumination of a display screen in portable wireless communication device comprising:
  - a light source for providing illumination for a display screen; and
  - a processor coupled to the light source that couples power to the light source to illuminate the display screen, determines at least one illumination time parameter corresponding to a message displayed on the display screen, wherein the at least one illumination time parameter is based on at least one of a length of the message, a number of lines of the display screen required to display the message, and a type of message to be displayed, and maintains a coupling of power to the light source for a period of time that is based on the at least one illumination time parameter.
9. The apparatus of claim 8, wherein the apparatus further comprises a timer coupled to the processor and wherein the processor maintains the illumination of the display screen for a period of time by determining a time value based on the at least one illumination time parameter, wherein the time value corresponds to the period of time, setting the timer based on the time value, decrementing the timer to produce a remaining time

value, and terminating the illumination of the display screen when the remaining time value no longer exceeds zero.

10. The apparatus of claim 8, wherein the at least one illumination time parameter comprises a plurality of illumination time parameters, wherein an illumination time parameter of the plurality of illumination time parameters comprises a time constant, and wherein the apparatus further comprises a memory device coupled to the processor that maintains the time constant.

11. (Cancelled)

12. The apparatus of claim 8, wherein the processor, when the display screen is illuminated, further receives an instruction to terminate the illumination of the display screen and, in response to receiving the instruction, decouples power from the light source prior to an expiration of the period of time.

13. The apparatus of claim 8, wherein the apparatus further comprises a light sensor coupled to the processor that senses a level of ambient light and conveys a signal corresponding to the sensed level of ambient light to the processor and wherein the processor further compares the level of ambient light to an ambient light threshold that is maintained in a memory device coupled to the processor, couples power to the light source to illuminate the display screen when the level of ambient light is less than the ambient light threshold, and determines to not illuminate the display screen when the level of ambient light is greater than the ambient light threshold.

14. The apparatus of claim 8, wherein the apparatus further comprises a light sensor coupled to the processor that senses a level of ambient light and conveys a signal corresponding to the sensed level of ambient light to the processor and wherein the processor further compares the level of ambient light to an ambient light threshold that is maintained in a memory device coupled to the processor and, when the level of ambient light is greater than the ambient light threshold, terminates the illumination of the display screen prior to an expiration of the period of time.

15. The apparatus of claim 8, further comprising the display screen.

16-18. (Cancelled)

19. An apparatus for controlling illumination of a display screen in a portable wireless communication device comprising:

- a display screen;
- a light source for illuminating the display screen;
- a processor coupled to the light source that couples power to the light source to illuminate the display screen, wherein the coupling of power to the light source causes the light source to illuminate the display screen;
- a light sensor coupled to the processor that senses a level of ambient light and conveys a signal corresponding to the sensed level of ambient light to the processor; and
- wherein the processor further compares the level of ambient light to an ambient light threshold that is maintained in a memory device coupled to the processor, couples power to the light source to illuminate the display screen when the level of ambient light is less than the ambient light threshold, and determines to not illuminate the display screen when the level of ambient light is greater than the ambient light threshold.

20. The apparatus of claim 19, wherein when the display screen is illuminated and the processor determines that the level of ambient light is greater than the ambient light threshold, the processor terminates illumination of the display screen.

### **EVIDENCE APPENDIX**

No evidence has been submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132, nor has any other evidence been entered by the Examiner and relied upon by the appellant.

#### **RELATED PROCEEDINGS APPENDIX**

The appellants and appellants' representative know of no other appeal, interference, or judicial proceeding that may be related to, directly affect or be directly affected by, or have a bearing upon the Board's decision in the pending appeal.